

BOAT							
Name	AMSERV TOYOTA ST			Sail Nr	EST 379		
File	EST379			Data in	meters/kilograms		
RIG							
Forestay Tension	Aft			Spreaders		2	
Inner Stay	None Fitted			Runners/Checkstays		0	
Carbon Mast	Yes			Jib Furler		No	
Fiber Rigging	No			Main Furler		No	
Non-Circular Rigging	No						
Articulated Bowsprit	No						
P	14.000	E	4.970	MDT1	0.149	MW	0.215
IG	15.037	J	3.940	MDL1	0.215	GO	0.240
ISP	15.090	SFJ	0.000	MDT2	0.120	BD	0.250
BAS	1.585	SPL	4.320	MDL2	0.198	MWT	151.50
FSD	0.034	TPS		TL	0.760	MCG	5.650

INCLINING TEST AND FREEBOARDS					
Inclining Test Current Inclining					
Flotation date		26/05/2020		SG	1.0000
FFM	1.336	FF	1.342	SFFP	0.367
FAM	1.043	FA	1.054	SAFP	10.162
W1	88.0	PD1	575.1	WD	11.620
W2	88.0	PD2	577.8	GSA	1.0
W3	88.0	PD3	576.0	RSA	1.0
W4	88.0	PD4	571.0	PLM	9000.0
LCF from stem on CL / on sheer				5.891 / 6.107	
Maximum beam station from stem				6.980	
RM Measured				140.1kg·m	
RM Default				142.2kg·m	
Limit of positive stability / Stab.Index				119.1° / 121.3	
Freeboard at mast at 3.940				1.193	



MIZZEN RIG AND SAILS	
	N/A

PROPELLER					
Installation	Type	Strut	PRD 0.410		
		Folding 2 blades	PBW 0.130		
Twin Screw		No	PIPA 0.0027		
ST1	0.042	ST3	0.180	ST5	0.280
ST2	0.180	ST4	0.090	EDL	2.480

Certificate	
Number	126/20
ORC Ref	03880000N25
Issued On	23/07/2020
VPP Ver.	2020 1.02
Valid until	31/12/2020

COMMENTS	

MOVABLE BALLAST	
	N/A

CENTERBOARD	
	N/A

SAILS INVENTORY																
MAINSAIL (1)																
Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
7a	0.45	1.26	2.08	3.34	4.18	43.08		05/08/2019	NorthSails	Unknown	P14.00;E4,97					
HEADSAILS (4)																
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	OvrIp	Area	Btn	Flying	Measurer	Meas.Date	Manufacture	Material	Comment
14b	0.11	0.71	1.30	2.27	3.13	4.04	14.61	103%	31.81		No		17/06/2020	NorthSails	Unknown	Jib 2 Medium 2019
13b	0.13	0.71	1.29	2.26	3.14	4.03	14.55	102%	31.65		No		05/08/2019	NorthSails	Unknown	Jib 1 Light 2018
7	0.10	0.61	1.15	2.16	3.15	4.10	14.10	104%	30.03		No		02/03/2015		Unknown	Jib 3 Heavy 2015
10	0.06	0.48	0.86	1.49	2.05	2.73	13.03	69%	18.80		No		12/01/2015	NorthSails	Unknown	Staysail 2012
SYMMETRIC SPINNAKERS (3)																
Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
13	15.14	15.14	15.14	7.73	7.42	96.75		02/04/2019		Unknown	S1,5					
14	15.23	15.23	15.23	7.69	7.33	96.69		02/04/2019		Unknown	S2					
12	15.20	15.20	15.20	7.20	8.00	93.23				Unknown	S3 Toyota					
ASYMMETRIC SPINNAKERS (0)																
Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment				

MEASUREMENT INVENTORY				
Measurer K-H Tagu EST7				
Date 26/05/2020				
Comment				
Internal Ballast total = 151.0				
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance</i>	<i>VCG Description</i>
<i>Id</i>	<i>Item</i>	<i>Maker</i>		<i>Model</i>
1	Engine	YANMAR		3YM30
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Description</i>	

MEASUREMENT INVENTORY									
<i>Id</i>	<i>Item</i>	<i>Tank Use</i>	<i>Tank Type</i>	<i>Capcty</i>	<i>Dist.</i>	<i>VCG</i>	<i>Condtn</i>	<i>Description</i>	
2	Tank	Water	Neopren bag	150.0	4.75		0-0	Water tank, strb	
1	Tank	fuel	steel	60.0	8.70		29-0	Fuel tank, center	
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance</i>	<i>VCG Description</i>					
2	Ballast	22.0	5.53	22 kg, center					
1	Ballast	129.0	5.98	45+40+44 kg, center, 3 pieces on top of each					
2	Battery	3.0	7.00	30 Ah					
1	Battery	17.0	7.00	90 Ahx2					
3	Misc		5.98	Air dryer, port					
2	Misc		10.00	Autopilot - Raymarine					
1	Misc		10.00	Heater - Eberspächer Marine D4					

2020

ORC Club Certificate Appendix

BOAT			
Name	AMSERV TOYOTA ST	Certificate Number	126/20
Sail Nr	EST 379	Issued On	23/07/2020

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1054.0	876.5	775.7	734.7	721.5	718.1	709.1
52°	688.9	582.1	529.1	509.8	503.7	501.1	494.9
60°	650.1	555.3	514.1	496.8	489.6	486.4	481.7
75°	620.3	536.9	503.3	484.9	472.1	464.4	458.9
90°	625.0	533.5	495.8	481.1	464.3	449.0	429.3
110°	626.1	524.7	487.0	463.0	444.1	432.5	413.7
120°	643.4	534.4	491.8	465.8	441.1	419.5	395.7
135°	709.0	578.3	512.7	482.8	458.3	433.8	388.8
150°	836.1	668.1	567.4	511.3	483.5	460.6	416.1
Run VMG	965.4	771.5	654.1	579.2	526.2	493.4	448.5
Selected Courses							
Windward / Leeward	1009.7	824.0	714.9	657.0	623.9	605.8	578.8
Circular Random	855.0	692.9	607.0	558.1	528.7	509.6	484.6
Coastal / Long Distance	1005.3	773.8	645.9	576.5	539.6	510.6	462.6
Non Spinnaker	914.3	734.6	637.9	581.8	547.7	525.6	497.2

Velocity Prediction in Knots for True Wind Speeds							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat Angles	42.8°	41.6°	40.9°	39.9°	39.4°	39.4°	40.5°
Beat VMG	3.42	4.11	4.64	4.90	4.99	5.01	5.08
52°	5.23	6.18	6.80	7.06	7.15	7.18	7.27
60°	5.54	6.48	7.00	7.25	7.35	7.40	7.47
75°	5.80	6.71	7.15	7.42	7.63	7.75	7.84
90°	5.76	6.75	7.26	7.48	7.75	8.02	8.39
110°	5.75	6.86	7.39	7.78	8.11	8.32	8.70
120°	5.59	6.74	7.32	7.73	8.16	8.58	9.10
135°	5.08	6.23	7.02	7.46	7.86	8.30	9.26
150°	4.31	5.39	6.34	7.04	7.45	7.82	8.65
Run VMG	3.73	4.67	5.50	6.22	6.84	7.30	8.03
Gybe Angles	145.0°	149.5°	151.5°	158.0°	180.0°	180.0°	180.0°